

## ABSTRACT

Presented herein are systems and methods for pixel reordering and selection. A decoded frame is stored in a frame buffer with a particular pixel order and byte order. A pixel feeder fetches portions of the decoded frame and stores portions of the frame in a double buffer with the same pixel order and byte order. An endian swizzle converts the byte ordering to a predetermined format, as needed. Reordering logic changes the pixel order to a predetermined order. Selection logic selects luma and chroma pixels from fetched pixels and provides the luma pixels to a luma pixel register, chroma Cr pixels to a chroma Cr pixel register, and chroma Cb pixels to a chroma Cb pixel register.